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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,286	08/17/2001	Steven B. McGowan	884.516US1	4742

21186 7590 07/17/2007  
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
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MINNEAPOLIS, MN 55402

EXAMINER
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HASHEM, LISA

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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07/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/932,286	<b>Applicant(s)</b> MCGOWAN, STEVEN B.	
	<b>Examiner</b> Lisa Hashem	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 5-1-07.
- 2a)  This action is FINAL.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-6 and 34-46 is/are pending in the application.  
    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-6 and 34-46 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
    a)  All    b)  Some \*    c)  None of:
1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-6 and 34-46 in RCE filed on 5-1-07 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-6 and 37-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,181,921 by Konisi et al, hereinafter Konisi, in view of U.S. Pat. No. 5,936,572 by Loomis et al, hereinafter Loomis.

Regarding claim 1, Konisi discloses a sound generation device (Figs: 1A, 1B; col. 7, line 66 – col. 9, line 7) comprising:

an audio source to generate an audio signal;

a frequency modulation (FM) radio frequency (RF) transmitter (Fig. 1B, 222), coupled to the audio source, to transmit an FM carrier signal modulated with the audio signal (col. 8, line 65 – col. 9, line 2), the FM carrier signal having a specific carrier frequency that does not interfere with transmission frequencies in a commercial FM broadcast band in a geographical region in which the sound generation device is currently located (col. 7, lines 1-31; col. 12, lines 20-40);

and a channel locator controller (Fig. 1B, 100) to identify a non-interfering carrier frequency, wherein the channel locator controller includes

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a stored program digital computer (Fig. 1B, 144),  
the computer to store a database of non-interfering carrier frequencies arranged by geoposition (col. 10, lines 28-32); and a geoposition source (col. 8, lines 6-22; Fig. 1A, 112) coupled to the stored program digital computer to provide a geoposition to the stored program digital computer.

Konisi discloses a channel locator controller to identify an available non-interfering carrier frequency for an FM carrier signal. However, Konisi does not disclose the range of the specific carrier frequency.

Loomis discloses a device comprising:  
a frequency modulation (FM) radio frequency (RF) transmitter (Fig. 1, 15) to transmit an FM carrier signal, the FM carrier signal having a specific carrier frequency within the range of 87.7 to 107.9 megahertz in a geographical region in which the sound generation device is currently located. Transmission frequencies in a commercial FM broadcast band are of 87.7 to 107.9 megahertz. A geoposition source provides a geoposition of the device (Fig. 1, 13) (col. 6, line 20 – col. 7, line 1).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Konisi to include information about the FM frequency ranges as taught by Loomis. One of ordinary skill in the art would have been lead to include such information on the FM frequency range in the sound device to identify the ranges and use available, non-interfering frequencies on a FM broadcast band.

Regarding claim 2, see col. 18, lines 4-14 of Konisi.

Regarding claim 4, see col. 8, lines 6-22 of Konisi.

Regarding claim 5, see col. 8, lines 32-38 and col. 10, lines 28-57 of Konisi.

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Regarding claim 6, see col. 8, line 48 – col. 9, line 7 of Konisi.

Regarding claims 37-40, please see the rejections to claims 1 and 4-6.

Regarding claims 41-44, please see the rejection to claim 1, wherein Konisi discloses a geoposition source (Fig. 1A, 112) (col. 8, lines 6-22).

Regarding claims 45 and 46, see col. 8, line 65 – col. 9, line 7 of Konisi.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konisi in view of Loomis and in further view of U.S. Patent Application Publication No. 2001/0049262 by Lehtonen.

Regarding claim 3, the sound generation device recited in claim 1, wherein Konisi in view of Loomis do not disclose an out-of-band transmitter to transmit a channel selection signal comprising an optimum carrier frequency.

Lehtonen discloses a sound generation device (Fig. 3) comprising:  
an audio source to generate an audio signal (Fig. 3, 27: MP3 Player) (section 0030, line 1 – section 0031, line 6);  
a radio frequency (RF) transmitter (Fig. 3, 22: RF, AER), wirelessly coupled to the audio source, to transmit an RF carrier signal modulated with an audio signal, the RF carrier signal having a specific carrier frequency (section 0035, lines 1-14); and  
a channel locator controller (Fig. 3: BT2) to identify an optimum carrier frequency (e.g. 2.4 GHz), wherein the channel locator controller includes  
an out-of-band transmitter (Fig. 3: BT2, ANT2) to transmit a channel selection signal comprising an optimum carrier frequency (section 0032, lines 1-6).

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It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Konisi in view of Loomis to include an out-of-band transmitter as taught by Lehtonen. One of ordinary skill in the art would have been lead to make such a modification to provide a sound generation device that includes an additional transmitter to transmit a channel selection signal that can communicate with receivers that can automatically switch to a new transmission frequency of the sound generation device.

5. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konisi in view of Loomis in further view of Lehtonen.

Regarding claims 34-36, please see claims (1 and 3), 5, and 6. Wherein Konisi discloses an a channel locator controller includes an RF receiver, coupled to the RF transmitter, to receive FM signals having different carrier frequencies (Fig. 1B, 300) (col. 8, line 65 – col. 9, line 7); and a channel locator circuit (Fig. 1B, 144), coupled (wirelessly) to the RF receiver, to identify a non-interfering FM carrier frequency in the form of an FM carrier frequency below a minimum signal strength (col. 13, lines 9-15 and lines 34-45).

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

7. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-8300 (for formal communications intended for entry)

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**Or call:**

(571) 272-2600 (for customer service assistance)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (571) 272-7542. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lh  
June 29, 2007

  
FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600